

swath printed by a single print element wherein the blocks of elements are arranged in groups in an elongate array, the blocks in each group being adapted for printing in different colours from each other, the array comprising at least two groups and wherein the blocks form a repeating pattern of constant pitch along the array;

(b) relatively indexing the printhead and the surface in a direction other than that of the relative traverse, and

(c) in a further relative traverse printing further swaths which at least partially overprint previously printed swaths in registry therewith, wherein each overprinting swath is of a different colour to the previously printed swath which it overprints.

E1
(cont)
~~1~~ (Amended) Colour printing apparatus comprising:

a printhead;

means for presenting a surface to the printhead for printing;

means for effecting a relative traverse of the surface and the printhead, the printhead comprising print elements arranged in blocks to print the surface with pixels in swaths of different colours side by side in a repeating pattern during said relative traverse, each swath being wider than that printed by a single print element and with ink of the same formulation and wherein the blocks of elements are arranged in groups in an elongate array, the blocks in each group being adapted for printing in different colours from each other, the array comprising at least two groups, a swath printed by a block of one group being at least partially overprinted by a swath printed by a block of another group and wherein the blocks form a repeating pattern of constant pitch along the array;

means for relatively indexing the printhead and the surface in a direction other than the direction of relative traverse; and

means for controlling the traversing means, the indexing means and the print elements whereby to effect at least one further relative traverse and to effect said relative indexing between traverses so that each further traverse at least partially overprints at least one previously printed swath of pixels with a further swath in a different colour in registry therewith.

E1
(cont)

~~2~~ (Twice Amended) A method as claimed in claim 1 wherein a swath printed by a block of one group being at least partially overprinted by a swath printed by a block of another group.

~~4~~ (Twice Amended) A method as claimed in claim 1 wherein printing is complete when the printhead and the surface have been relatively indexed through one cycle of the repeating pattern.

~~5~~ (Twice Amended) A method as claimed in claim 1 wherein the blocks of print elements are adapted to print swaths of equal width, and the cyclic pitch of the repeating pattern is an integral multiple of the swath width.

~~6~~ (Twice Amended) A method as claimed in claim 1 wherein the swaths are regularly distributed within the cycle of the repeating pattern.

E2

~~9~~ (Twice Amended) A method as claimed in claim ~~11~~⁸ wherein when there are n said different colours the width of the printhead exceeds that of the surface by $(n-1)/n$ of a pitch.

E3

~~26~~ (Twice Amended) A colour printhead comprising an elongate array of blocks of print elements extending side by side in an array direction, the printhead being configured for relatively traversing a surface to be printed in other than the array direction, the blocks being arranged to print swaths of different colours side by side in a repeating pattern during said relative traverse, each swath being wider than a swath printed by a single print element and with ink of the same formulation and wherein the blocks of elements are arranged in groups, the blocks in each group being adapted for printing in different colours from each other, the array comprising at least two groups, the arrangement of the blocks being such that relative indexing of the printhead and the surface in the array direction permits printing of further swaths at least partially overprinting previously-printed swaths, wherein each overprinting swath is of a different colour to the previously printed swath which

it overprints and wherein the blocks form a repeating pattern of constant pitch along the array.

²⁷
~~19~~. (Twice Amended) A printhead as claimed in claim ²⁶~~17~~ wherein the groups are of equal width in the array direction.

¹⁵
~~28~~. (Amended) An apparatus as claimed in claim ¹⁴~~2~~ wherein the groups are of equal width in the array direction.

¹⁶
~~31~~. (Amended) An apparatus as claimed in claim ¹⁴~~2~~ wherein printing is complete when the printhead and the surface have been relatively indexed through one cycle of the repeating pattern.

¹⁹
~~32~~. (Amended) An apparatus as claimed in claim ¹⁴~~2~~ wherein the blocks of print elements are adapted to print swaths of equal width, and the cyclic pitch of the repeating pattern is an integral multiple of the swath width.

¹⁸
~~33~~. (Amended) An apparatus as claimed in claim ¹⁴~~2~~ wherein the swaths are regularly distributed within the cycle of the repeating pattern.

²¹
~~36~~. (Amended) An apparatus as claimed in claim ²⁰~~35~~ wherein when there are n said different colours the width of the printhead exceeds that of the surface by (n-1)/n of a pitch.

REMARKS

Claims 1-40 were pending in the application. By this paper, claims 5, 6, 18, 20, 21, 23, 27, 29, and 30 have been canceled without prejudice herein, claims 1, 2, 3, 7-9, 12, 17, 19, 28, 31-33, and 36 have been amended, and claims 1-4, 7-17, 19, 22, 24-26, 28, and 31-40 remain pending. Reconsideration and withdrawal of the claim rejections are hereby respectfully solicited in view of the foregoing amendments and the following remarks.